

Amendments to the Claims

The listing of claims set forth below will replace all prior versions and listings of claims in the application.

Claim 1. (Canceled)

2. (Currently Amended) A vector system for producing ~~infectious-virus~~ particles comprising two vectors, wherein the first vector comprises at least one vector comprising a nucleic acid encoding an AAV4 capsid protein having about 90% homology to an amino acid sequence set forth in SEQ ID NO:4, wherein the vector system produces AAV particles.

3. (Currently Amended) The vector system of claim 2, wherein ~~the first vector comprises a nucleic acid encoding an AAV4 capsid protein and~~ the second vector comprises a pair of AAV inverted terminal repeats.

Claims 4-5 (Canceled)

6. (Currently Amended) The vector system according to claim 3, wherein the second vector comprises a pair of ~~AAV2 inverted terminal repeats~~ nucleic acids comprising AAV2 Rep protein binding sites.

7. (Currently Amended) The vector system according to claim 3, wherein the second vector comprises a pair of ~~AAV3 inverted terminal repeats~~ nucleic acids comprising AAV3 Rep protein binding sites.

8. (Currently Amended) The vector system according to claim 3, wherein the second vector comprises a pair of ~~AAV4 inverted terminal repeats~~ nucleic acids comprising AAV4 Rep protein binding sites.

9. (Currently Amended) The vector system according to claim 8, wherein the AAV4 ~~inverted terminal repeats~~ comprise a Rep protein binding site ~~has~~ having four "GAGC" repeats, wherein in the fourth nucleotide in the first two "GAGC" repeats is a T rather than a C.

10. (Currently Amended) The vector system according to claim 9, wherein the AAV4 ~~inverted terminal repeats~~ Rep protein binding sites comprise the nucleotide sequence set forth in SEQ ID NO:6.

11. (Currently Amended) The vector system according to claim 9, wherein the AAV4 ~~inverted terminal repeats~~ Rep protein binding sites comprise the nucleotide sequence set forth in SEQ ID NO:20.

12. (Currently Amended) The vector system according to claim 3, wherein the second vector comprises a pair of ~~AAV5-inverted terminal repeats~~ nucleic acids comprising AAV5 Rep protein binding sites, and wherein the first vector further comprises a nucleic acid encoding an AAV5 Rep protein.

13. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV2 Rep protein.

14. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV3 Rep protein.

15. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV4 Rep protein.

16. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:2.

17. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has about 95% homology with the amino acid sequence set forth in SEQ ID NO:2, wherein the vector system replicates.

18. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:8.

19. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has about 95% homology with the amino acid sequence set forth in SEQ ID NO:8, wherein the vector system replicates.

20. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:9.

21. (Previously Presented) The vector system of claim 15 wherein the adeno-associated virus 4 Rep protein has about 95% homology with the amino acid sequence set forth in SEQ ID NO:9, wherein the vector system replicates.

22. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:10.

23. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has about 95% homology with the amino acid sequence set forth in SEQ ID NO:10, wherein the vector system replicates.

24. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:11.

25. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has about 95% homology with the amino acid sequence set forth in SEQ ID NO:11, wherein the vector system replicates.

26. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV5 Rep protein.

27. (Currently Amended) The vector system according to ~~claim 4~~ claim 15, wherein the first vector further comprises a nucleic acid encoding an AAV2 capsid protein.

28. (Currently Amended) The vector system according to ~~claim 4~~ claim 15, wherein the first vector further comprises a nucleic acid encoding an AAV3 capsid protein.

Claim 29. (Canceled)

30. (Currently Amended) The vector system of claim 2 ~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:4.

31. (Currently Amended) The vector system of claim 2 ~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence defined by amino acids 438-601 set forth in SEQ ID NO:4.

32. (Previously Presented) The vector system of claim 29, wherein the adeno-associated virus 4 capsid protein has about 98% homology to the amino acid sequence set forth in SEQ ID NO:4, wherein the vector system produces AAV particles.

33. (Currently Amended) The vector system of claim 2 ~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:16.

34. (Currently Amended) The vector system of claim 2-~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has about 98% homology to the amino acid sequence set forth in SEQ ID NO:16, wherein the vector system produces AAV particles.

35. (Currently Amended) The vector system of claim 2-~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:18.

36. (Currently Amended) The vector system of claim 2-~~claim 29~~, wherein the adeno-associated virus 4 capsid protein has about 98% homology to the amino acid sequence set forth in SEQ ID NO:18, wherein the vector system produces AAV particles.

37. (Original) The vector system according to claim 4, wherein the first vector further comprises a nucleic acid encoding an AAV5 capsid protein.

38. (Original) A vector system according to claim 3, wherein the second vector further comprises a promoter between the inverted terminal repeats.

39. (Original) A vector system according to claim 38, wherein the promoter is functionally linked to an exogenous nucleic acid.

40. (Original) The vector system according to claim 2, wherein the system comprises a series of vectors.

41. (Original) A method of making a recombinant particle for delivering an exogenous nucleic acid to a cell, comprising delivering to a cell having helper function the vectors of the vector system of claim 39.

42. (Original) The method of claim 41, wherein the helper function is provided by a helper virus.